

Engineers' Creed

As a Professional Engineer, I dedicate my professional knowledge and skill to the advancement and betterment of human welfare.

I pledge:

To give the utmost of performance;

To participate in none but honest enterprise;

To live and work according to the laws of man and the highest standards of professional conduct;

To place service before profit, the honor and standing of the profession before personal advantage, and the public welfare above all other considerations.

In humility and with need for Divine Guidance, I make this pledge.

*Adopted by
National Society of Professional Engineers
June, 1954*

World Health Theme For Engineering Week

National Engineer's Week for 1968 is the week of February 18 through February 24. It falls within the week when Washington's birthday falls. The Father of our country, himself, was an engineer.

Today's engineer makes the world his laboratory, and no corner is too remote for his projects which will improve man's health. The theme of this year's week is "Engineering—Design for World Health."

Working on a basic sanitation problem in the Congo . . . a sophisticated nuclear reactor in Europe . . . nutrition in India . . . a water supply in the remote jungle of Peru . . . a dam in the Middle East . . . the engineer is there.

Engineers Plan Banquet Friday

Area Engineers will mark Engineering Week with a big banquet set Friday, February 23, at the Oak Ridge Country Club.

The social hour begins at 6:30 p.m., with dinner at 7:30 p.m.

Guest speaker will be Representative John C. Duncan, U. S. Congress. He will be introduced by Roger F. Hibbs, vice president of the Nuclear Division, Union Carbide Corporation.

Tickets are \$3.50 for Friday's banquet and may be obtained from Y-12ers T. W. Robinson, R. C. Rosenvinge, and T. E. Douglass.

Everything engineers do, all that they achieve, must finally be measured in terms of its effect on the individual. The Industrial Revolution gave the engineer a discernible image among those of the older professions. During the early 1900's the development of U. S. cities and major reclamation

Continued on Page 4

Records Systems Expert Guest At HPS Meeting

Charles F. Eason, outstanding authority on radiation records systems, will be the speaker for the February 26 meeting of the East Tennessee Chapter of the Health Physics Society. Monday's meeting will be at the Oak Ridge Country Club.

Eason is a graduate of Rutgers University Law School and was admitted to practice before the U. S. Supreme Court. Since his tour of duty in World War II he has held a variety of important positions. These include membership of the Legislative Council for the AEC in 1955, and subsequent Counsel for Federal State Relations. In 1965, he served as chairman of the Commission's Task Force on Federal-State Cooperation in Workman's Compensation for Radiation Workers.

Eason was called in 1966 to testify before the Joint Council on Atomic Energy on the commission's proposed record keeping program for radiation workers. The subject of his talk will be "Radiation Dose Records and the Central Depository Concept."

Monday's program will begin at 7:30 p.m. with a social hour, followed by dinner preceding the technical session. The program will be moderated by Dr. C. S. Shoup.

Friday Is Holiday In Lieu Of February 22

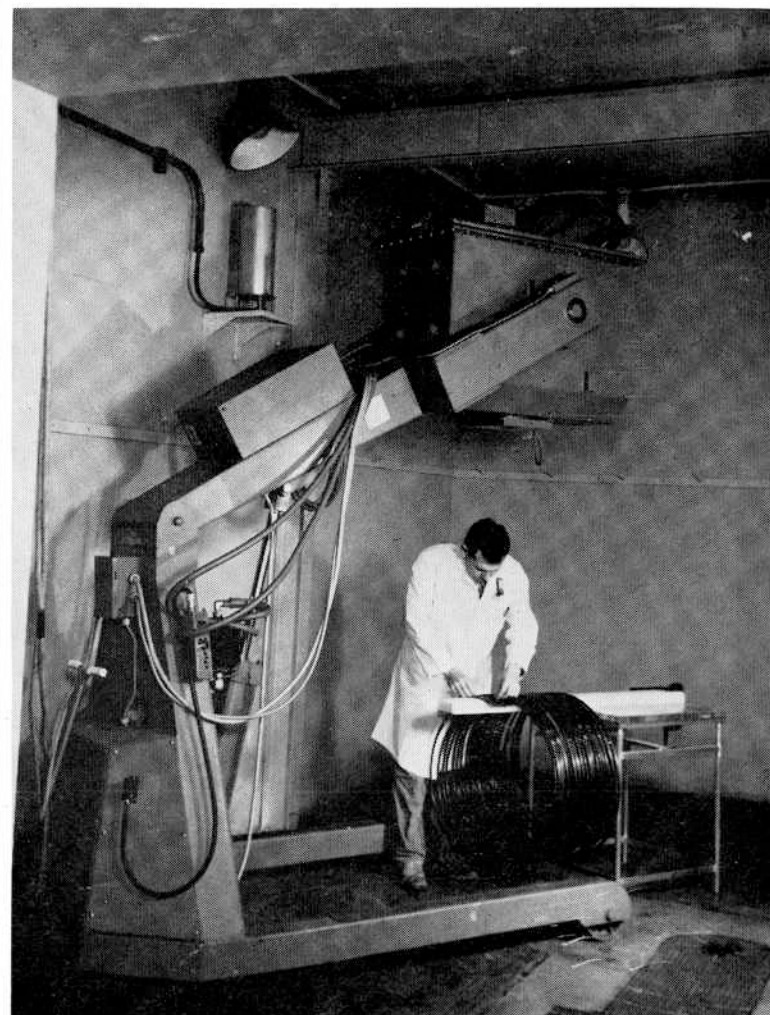
Friday, February 23, is an official holiday for Y-12ers.

The plant celebrates the birthday of George Washington one day late this year, to afford employees a long week-end.

Not that it's very relevant, but February 22 is not the birthday of the Father of our Country. Washington was actually born on February 11, 1732 (according to the Old-Style Calendar.)

NO FADE OUTS

Thanks to television . . . old movies never die, not matter how long ago it was they were shot!



COPPER TUBING TO BE USED IN THE FABRICATION of electromagnetic coils for a beta-ray spectrometer are inspected by X-ray radiography before being wound. The coils were fabricated in Y-12, for the National Testing Station, Idaho.

Electromagnetic Coil Made Here For Idaho Station

Y-12 personnel have fabricated a large electromagnetic coil assembly and vacuum tank to be used in beta radiation experiments at the National Reactor Testing Station in Idaho.

The assembly is composed of six coils aligned around an aluminum vacuum tank. Each coil consists of a brass ring wound with layers of copper tubing coated with an epoxy resin. The

coils were wound to a precision of a few thousandths of an inch by a combination of hand and machine winding techniques.

The two largest coils are 72 inches in diameter, another two are 30 inches and the smallest are approximately 14 inches in diameter.

The coils are the prime components in a beta-ray spectrometer that will be used to determine energies of electrons produced by a radioactive source. Electrical current passed through the coils will focus the electrons onto a detector. Electron energies can be determined to a precision of a few parts per million.

Y-12 was requested to perform the fabrication because of its unique shop facilities for precision winding of magnetic coils.

CITY VS. COUNTRY

City folks go to the country to hunt wild life. Rural residents go to the city for the same purpose.

SAFETY SCOREBOARD

The Y-12 Plant Has
Operated
53 Days Or
1,571,000 Man-Hours
(Unofficial Estimate)
Through February 18
Without a Disabling
Injury
Safety At Home
At Work, At Play



ELECTROMAGNETIC COILS FABRICATED AT Y-12 are inspected prior to shipment to the National Reactor Testing Station in Idaho by K. L. Pruitt and W. O. Conant. Seen are five of the six coil assemblies to be used in a beta-ray spectrometer which will determine electron energies emitted from radioactive sources.

The Bulletin

Published Weekly For The
Y-12 Employees Of
UNION CARBIDE
CORPORATION



NUCLEAR DIVISION

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Member
Appalachian
Industrial
Editor's
Association

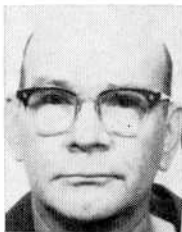
American Association Industrial Editors

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Mitchell Rites In Johnson City

Process Maintenance mourns the death of Mr. Charles J. Mitchell. He died Friday, February 9 at a Johnson City hospital. He had been in poor health for some time.



Mitchell

The Mitchell home is at 134 East Tennessee Avenue, Oak Ridge. Mrs. Mitchell is the former Clina Smith.

Mitchell was born in Washington County where he spent his early youth. He worked with Tennessee Eastman Corporation before transferring with them to Oak Ridge in early 1944.

Also surviving the Y-12er are his parents Mr. and Mrs. Charles E. Mitchell, Route 4, Jonesboro; sons, Wayne, Merritt Island, Florida; and Ray, Somerville, Massachusetts; five grandchildren; step-daughters, Mrs. Margie McCain, Lancaster, South Carolina; and Mrs. Burnell Farr, Oak Ridge; brothers, Joseph, Jonesboro; Dewey, Arlington, Massachusetts; Bill, Brighton, Massachusetts; Basil and Bob Mitchell, Akron, Ohio; sisters, Mrs. Ralph Brown, Chelmsford, Massachusetts; Mrs. Jack Blevins, Kingsport, Tennessee; Mrs. Estle Tiser and Mrs. Earl Gray, Jonesboro; and half-sister Mrs. Paul Erwin, Cumberland, Virginia.

Funeral services were held 10:30 a.m. Tuesday, February 13, at Appalachian Funeral Home, Johnson City. The Reverends John Gilbert and Alvin Covell officiated. Burial followed in the Monte Vista Cemetery.

Sincere sympathy is extended the Mitchell family.

Histology 3320 To Be Offered This Spring

Plans are being made to offer Histology 3320 during the Spring Quarter, 1968, under the Oak Ridge Resident Graduate Program, University of Tennessee. The course will consist of study of the principal animal tissues and organs with emphasis on identifying each microscopically. Four hours credit will be given for the course.

All interested in registering for the course are urged to contact Jim Conklin, extension 3-7682, or Bill Gude, 3-7987.

DRAG TIME

You can always tell when Spring is coming. Bill Stephens says their Drag Strip down at Harriman will open Sunday, March 3 . . . with time trials at 12:30 . . . and race time at 2:30 p.m.

Technical Plans Jell For Party

The Technical Division dinner-dance is fast becoming the talk of the lunch-hours these days.

Set for Saturday, March 9, at 6 p.m. at the Oak Ridge Holiday Inn, the dance features the music of Charlie Baker.

Dinner-Dance tickets are \$5 each . . . \$4 for the dinner only . . . \$2.50 for the dance only.

The social hour is 6 p.m. with dinner at 7:30 p.m. and the dancing starting at 9 p.m.

Technical personnel say that tickets are available from Mildred Morris, Daisy Ward, Earl Price, Mike Sherrill, Sandra Estes, Jack Gresham, Max Scott and Ruby McCloud.

Get your tickets early for the "Last Fling Before Spring." There's a limited number that can attend the March 9th party . . . so get your name in the pot early.



February wanes, and the promise of Spring hints of better days. Celebrating milestones with Union Carbide Corporation are more Y-12ers. Congratulations.

20 YEARS

Robert N. Rice, Product Engineering, February 27.

15 YEARS

Lonnie L. Bailey, Tool Grinding, February 23.

James M. Seivers Jr., Employment Department, February 23.

Edward E. Cook, Electrical Department, February 26.

H. L. Morgan, Receiving Department, February 26.

John W. Smith, Tool Engineering, February 26.

10 YEARS

William D. Sisson Jr., 9215 Rolling Department, February 24.

SCOUTMASTER NEEDED

The West Knoxville, Bearden section, is in need of a Scoutmaster. Anyone wishing to volunteer for this worthwhile endeavor should get in touch with George Heins, Building 9733-1. You can reach him on extension 3-7705, or at home Knoxville 588-9737.



DEdra MICHELL WHITE holds her little nephew John Michael Jackson, born January 17, Zanesville, Ohio. Dedra is the daughter of Mr. and Mrs. Paul S. White, Oak Ridge. White is in the Biology Division. John is their first grand-child . . . and although Mrs. White and Dedra visited recently, the grandfather has to wait until Easter to see his first grand-son.



AFTER 21 WEEKS OF TRAINING, the above men have graduated as certified welders. The training and Technology project graduated its latest class Friday, February 9. TAT is supported by the U. S. Department of Labor and the U. S. Office of Education through interagency agreements with the Atomic Energy Commission.

Bear Creek Road Improvements Come

Y-12 commuters using Bear Creek Road may expect some relief from congested traffic during rush hours, come April.

Plans have been announced that will add an extra lane going out Bear Creek Road (from North Portal). This will widen to three lanes (in the morning) and three lanes out in the afternoon.

The Scarboro Road will also be widened from the Bear Creek Y to East Patrol Road (the dirt road leading to the rock quarry). This will afford Knox-bound traffic the option of going around commuters waiting to turn left on East Patrol Road.

The State Highway Department has plans to make an additional lane of traffic out on Solway Road in the near future.

The curves on both side of the Y — the intersection of Break Creek and Scarboro — will be improved so that it will not be necessary to cut speed drastically when manipulating the curve, as present conditions require.

'21 Century' Program Cited By Education Group

Union Carbide Corporation has won a major industry-education science award for its sponsorship of the "21st Century" television series and its free-loan film distribution to schools of episodes from the program, and its Teacher's Guide programs for both the t.v. and the film series. The award, presented annually by the National Association for Industry-Education Cooperation for the most effective industrial or individual contribution to science education in the schools, will be given to Union Carbide at the General Session of the 1968 National Science Teacher's Association Convention in Washington, D. C. on April 1.

Good Samaritan Helps Analyst With Tire

Rose Spears, Assay Laboratory, acknowledges thanks to a fellow Y-12 employee. It seems she was coming off the second shift the other night to discover a flat tire on her auto. No garage in Oak Ridge makes road calls after that hour, but a fellow employee helped change the tire, very cheerfully.

Rose says she did not get the man's name, and would like his Samaritan deed publicly thanked. So to some unknown Y-12er . . . thanks!

One accident can upset your whole world.

Training And Technology Project Graduates 21 Students n Welding Course

The Training and Technology project graduated a class of 21 certified welders Friday, February 9.

The class received 21 weeks of training in shielded metal arc welding, both plate and pipe, and in gas tungsten welding. Studies also include shop mathematics, communications, welding processes, welding metallurgy and blueprint reading.

The training was conducted in Y-12 by employees of the Nuclear Division of Union Carbide Corporation. Also participating in the project were Oak Ridge Associated Universities, the University of Tennessee, and the Tennessee Department of Employment Security.

nesses Department of Employment Security.

The welding trainees, from communities throughout Tennessee, were certified by Y-12 Plant certification personnel.

Training and Technology is an experimental and demonstration project supported by the U. S. Department of Labor and the U. S. Office of Education through interagency agreements with the Atomic Energy Commission.

LOVE'S OLD FLAME

A fellow we know claims his domestic explosion at home appears to have been caused by the mere mention of an old flame.

THE WHITE HOUSE

WASHINGTON

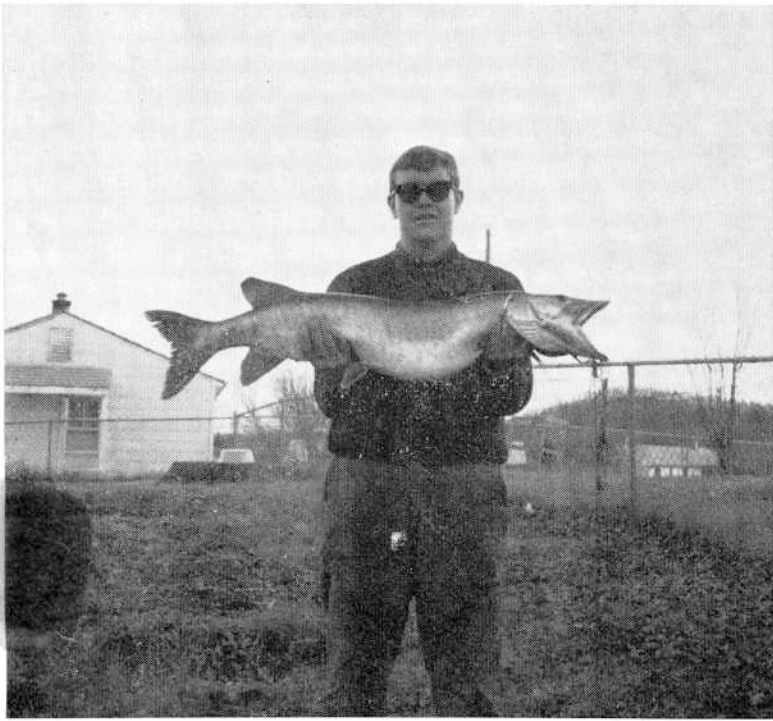
January 16, 1968

Two thousand years ago, imaginative Roman engineers built the great aqueducts which brought pure water to the early cities of Europe. Their achievement was one of the wonders of the world.

Today, we take for granted that skilled engineering can routinely assure us of safe urban water supplies and efficient sanitation systems. We give little thought to our dependence on engineers to safeguard our public health.

But there are new challenges to this generation of engineers. We must turn the best of our technology to preserving the health of our environment. New instruments that enormously improve diagnosis and treatment have given us a dramatic new vision of what engineers and doctors can accomplish when they work and think together on human medical problems.

National Engineers Week offers young people across the country a sense of the urgency and excitement to be found in this work. I congratulate all who sponsor this event and commend your choice to focus it on the use of engineering in man's struggle against disease.



JIM LAWRENCE, TOOL ENGINEERING, wanted to get in style . . . so he went out and caught himself a muskellunge . . . along with 7,000 other Y-12ers! The weight of Jim's big catch is a secret, naturally, since it's entered in the annual Rodeo . . . but it also came from Norris . . . the first few days in February.

Recreation



Friday, February 23
HOLIDAY FOR Y-12ers.

Monday, February 26
BASKETBALL: Beginning 6:30 p.m. Oak Ridge High School Gym. Combustions vs. Bat Boys; Chargers vs. Health Physics; Radioisotopes vs. K-25 Falcons.

TABLE TENNIS: 7 p.m., Oak Ridge Wildcat's Den.

PHYSICAL FITNESS: (For Women) 7:30 p.m. Oak Ridge High School Girls' Gym.

BOWLING: C League, 5:45 p.m., Ark Lanes.

Tuesday, February 27
PHYSICAL FITNESS: 7:30 p.m. Oak Ridge High School Gym. BASKETBALL: Beginning 6:30 p.m. Robertsville Junior High School Gym. Atoms vs. Eagles; Combustions vs. K-25 Falcons; Bombers vs. Bat Boys.

Wednesday, February 28
BOWLING: Mixed League, 8 p.m., Ark Lanes.

BASKETBALL: Beginning 6 p.m., Oak Ridge High School Gym. Eagles vs. Sharp Shots; Bombers vs. K-25 Falcons; TK's vs. Atoms.

Thursday, February 29
BOWLING: 5:45 p.m., Classic League, Ark Lanes.

BADMINTON: Informal Play, employees and spouses; 7:30 p.m. Jefferson Junior High School Gym.

VOLLEYBALL: Second Half Begins! Beginning 6:30 p.m. Oak Ridge High School Gym. Court A: Set Ups vs. Beavers; K-25 Gashouse Gang vs. Old Men; Mix Ups vs. Dirty Half Dozen. Court B: Naughts vs. Neophytes; Charley Browns vs. Mountaineers; Ecobums vs. K-25 Hawks.

Saturday, March 2
Y-12 BOWLING TOURNAMENT: Mixed Doubles . . . Team Events, Ark Lanes.

Sunday, March 3
Y-12 BOWLING TOURNAMENT: Doubles and Singles, Ark Lanes.

MEMBERS BEWARE

Sign at a country club! 'Members are kindly requested to refrain from picking up lost golf balls . . . until they have stopped rolling.'

Pinbusters Push Into Classic Lead

The Pinbusters plowed their way into first place in the Classic Bowling League last week by blasting the Playboys for the full count. The only other four-point win of the week went to the Eagles over the Screwballs.

Winning three it was the Bumpers by the Has Beens, the Swingsters superior to the Markers, the Rippers 'round the Cubs, the Eightballs past the All Stars, the Tigers beyond the Rebels and the Smelters by the Splinters.

Bill Stephens, Bumpers, raged hot on the alleys with a 259 single game . . . a 277 handicap single . . . and series of 649 scratch, 703 handicap!

The Bumpers were best on scratch counting with singles of 935 and series of 2686 . . . while the Pinbusters were superior on handicap count with series of 2998 and singles of 1046.

League standings follow:

Team	W	L
Pinbusters	21	11
Bumpers	20	12
Eagles	20	12
Markers	19½	12½
Swingsters	19	13
Rippers	18½	13½
Rebels	18	14
Eightballs	18	14
All Stars	16½	15½
Has Beens	16	16
Playboys	15	17
Cubs	14	18
Splinters	13	19
Tigers	12½	19½
Smelters	8	24
Screwballs	7	25

Hits & Misses Tie Rollers In Mixed

The Rollers and Hits & Misses are tied in top standings in the Mixed Bowling League after four-point wins last week. The Rollers rolled past the Roses 'N Thorns, and the H & M team hit the Alley Cats. The McSprays nixed the Goofers for three . . . and the Twisters and Mustangs shared two.

Bob Hagood, Goofers, rolled a 210 scratch, 235 handicap game. Bob Forseman, Mustangs, rolled series of 582 scratch, 648 handicap. Barbara Hackett, Roses 'N Thorns, and Alice Forseman, Mustangs, tied for high scratch singles, each with 178. Alice's 222 handicap single was high. Lou Sahr, Twisters, took a 442 scratch series . . . and Ann Lively, Rollers, rolled a 596 handicap series.

The McSprays posted high singles . . . 664 scratch, 814 han-

Basketball Action Fast For Week

Y-12's Atoms opened Basketball play last week by downing the Falcons 47 to 26 . . . with Don Stinnett leading the way for the Atoms. He scored 16, while Don Forrester tallied with 14.

For the Falcons it was Ron Kelley with eight.

Y-12's Eagles came through in game number two to down another Y-12 team . . . the Bat Boys, 54 to 34. Ron Gamrot dropped 21 through the basket. . . . Larry McDonald scored an even dozen.

Hugh Beeson led the Bat Boys' scoring.

In final action Tuesday, the TK's defeated Combustion 49 to 37.

A real thriller came early Wednesday as the Chargers defeated the Eagles. This was one of the best shooting matches of the year, as the Eagles have added a power in former Catawba College star Ron Gamrot, who hit 26 points and proved a terror on the boards. Ray Leffler was tremendous for the Chargers, hitting practically everything he threw in the direction of the boards. He led the Chargers with 32 points.

Combustion played only four men and gave a good account of themselves as the Bombers edged by them 64 to 40. If Curtis McGinnis, who scored 22 points, had had extra help it might have spelled the difference. Jim Shoemaker led the Bombers with 20 big points.

Health Physics again proved their mettle in the final game Wednesday . . . by downing Y-12's Atoms. The HP team was not too sweet to the Atoms on Valentine's Day, as they ran roughshod over them. Everyone got in on scoring, as Jim Treadwell totaled 18. Larry Finch and Sam Weaver also got in the double scoring act.

For the losers it was Jim Batch with 10.

Thursday's games saw the TK's win by forfeit from the K-25 Falcons.

The Sharp Shots eased by the Bat Boys 49 to 39 . . . leading all the way until the final seconds when the Boys pulled up and threatened to take the game away.

Phil McCulley led scoring for the SS team with 10 . . . Buddy White for the losers with 10 also.

Radioisotopes rammed a victory by the Chargers 40 to 27 in final play for the week. Joe Crunk scored 14 for the winning team . . . Ray Leffler 12 for the losers.

League standings follow:

Team	W	L
Health Physics, ORNL	2	0
Bombers, ORNL	2	0
Chargers, Y-12	2	1
Atoms, Y-12	2	1
Eagles, Y-12	2	1
TK's, ORNL	2	1
Radioisotopes, ORNL	1	1
K-25 Falcons	1	2
Sharp Shots, ORNL	1	2
Combustion, ORNL	0	3
Bat Boys, Y-12	0	3

Last Fling

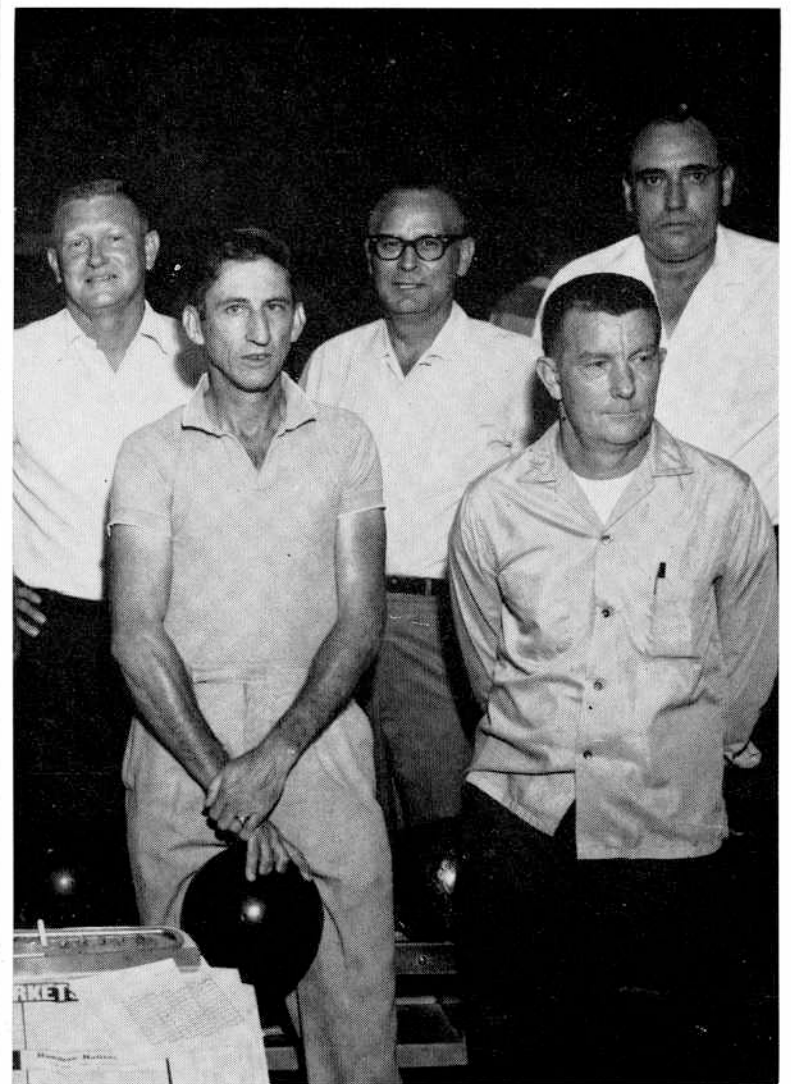
The Technical Services Division again requests employees to save the evening of Saturday, March 9 . . . for their big "Last Fling Before Spring!"

Details on the party will follow. Just circle the calendar now.

dicap. The Mustangs mustered a 1863 scratch series . . . the McSprays returned to the boards with a 2310 handicap series.

League standings follow:

Team	W	L
Rollers	19	13
Hits & Misses	19	13
Roses 'N Thorns	18	14
Mustangs	18	14
Goofers	15	17
Twisters	15	17
McSprays	15	17
Alley Cats	9	23



THE ROYAL FLUSH is a competent team in the C Bowling League, rolling every Monday at 5:45 p.m. In the front row are Captain M. C. Cooper and W. R. McCallister. In the rear are K. E. "Cotton" Thomas, J. C. Booher and Dave Woody.

Table Tennis Sees Plenty Of Action

Geoffrey Newman extended his long lead in the X Table Tennis League last week by defeating Herb Mook for three games. Loyd Wyatt also ran over Bill Motley the full three. Roy Huddleston defeated Herve Derrien two games of three.

X League standings:

Player	W	L
Geoffrey Newman	28	2
Loyd Wyatt	18	12
Roy Huddleston	16	14
Herve Derrien	15	15
Herb Mook	15	15
Bill Motley	13	17
Bill Foutz	8	19
Jerry Keyes	4	23

Y action saw Gordon Brewer down Ed Gambill two games . . . Bob Coveyou beat Al Norris for two. Paul Kasten defeated Francois Kertesz all the way . . . and Art Weinberger took a forfeit win from Bob Brown.

Y League standings:

Player	W	L
Gordon Brewer	24	6
Bob Coveyou	21	6
Ed Gambill	20	10
Paul Kasten	19	11
Al Norris	18	12
Fred Wetzell	8	7
Art Weinberger	8	13
Rokuro Oyamada	7	17
Francois Kertesz	7	20
Bob Brown	0	27

Bob Smith defeated A. B. Meserve for three games in Z action. Joe Lewin downed Winfred Collins for the full count . . . and took two games from Bill Hackett. Ken Toth defeated Tudor Boyd for the full count.

Z League standings:

Player	W	L
Bob Smith	26	1
Joe Lewin	18	6
Bill Hackett	12	9
A. B. Meserve	13	11
Dave Allen	6	15
Ken Toth	6	3
Tudor Boyd	0	12
Winfred Collins	0	24

TIE THAT BINDS

We asked a female the other day if she'd prefer to remain single . . . she answered that she'd rather knot.

No sense and nonsense causes most accidents.

Sunflowers New C Bowling Leaders

The Sunflowers and Badgers barged their way into the forefront of the C Bowling last week. The Sunflowers sank the Rounders for three big points, to gain for themselves top standings. The Badgers closed into a tie for second place with a sweeping win over the Big Five, the only four-point victory of the night.

Other three point wins saw the Royal Flush regal over the Invalids, the Rodders riding over the Fireballs, the Rollmasters past the HiLifers and the King Pins by the Parbusters.

Dick Huber, Badgers, bested the field with a 227 scratch game. Joe Beaver, Parbusters, put a single handicap game of 246 on ice. R. S. Hopper, Sunflowers, had a series of 582 scratch, 651 handicap.

The Sunflowers were best in singles . . . scratch counting, 915. The Rollmasters rolled a 1038 handicap single. The Sunflowers put a new high scratch series on the boards with 2660, and handicap series of 2969.

League standings follow:

Team	W	L
Sunflowers	17	7
Badgers	16	8
Parbusters	16	8
Rounders	15	9
HiLifers	12	12
Royal Flush	11	13
Invalids	11	13
Fireballs	10	14
Rodders	10	14
Rollmasters	9	15
Big Five	9	15
King Pins	8	16

Lady Bowlers To Hold Annual Banquet Saturday

The Oak Ridge Women's Bowling Association banquet is set for Saturday February 24, at 7:30 p.m. at the Holiday Inn, Oak Ridge.

If your league secretary does not have tickets, they are available at Ark Lanes.



YOUNG PUPIL . . . ATTENDING ALL-DAY SCHOOL at 18 months of age. Little blonde Sara Pickett gives her full attention to an educational toy held by Dr. Bettye Caldwell, director of the Syracuse University Children's Day Care Center. Dr. Caldwell, an educational futurist, will appear on the "21st Century" telecast, "From Cradle to Classroom," Part II, February 25, at 6 p.m. in color over the CBS Television Network. She will demonstrate the teaching procedures that are being used with youngsters in the Syracuse University project. CBS News Correspondent Walter Cronkite is principal reporter for the series sponsored in the public interest by Union Carbide Corporation. (The program is carried locally by WBIR-TV, Channel 10.)

Cradle Classroom - Part II Is Topic For 21st Century Program Sunday

Toddler play may give way to "micro-cram courses" for youngsters by the year 2001 reports "The 21st Century" in the second of its two part analysis of the future of pre-school education, "From Cradle to Classroom," (Part II) Sunday, Feb. 25 at 6:00-6:30 PM, EST, in color on the CBS Television Network. CBS News Correspondent Walter Cronkite is principal reporter for the series which is sponsored in the public interest by Union Carbide Corporation.

The concept that the first five years of a child's life are a "not-to-be-tampered-with-time," will be challenged by two educational futurists: Dr. Bettye Caldwell of The Syracuse University Children's Day Care Center, and Siegfried Engelmann of the University of Illinois, Champaign.

The advanced concepts of Dr. Caldwell and Engelmann are based upon the belief that half a child's adult intelligence is formed by the age of four. Their work offers a challenge to the two credos of American parents and teachers: don't meddle with the intellect of a very young child and don't separate him from his mother. If you do either, the child will suffer irreparable emotional damage.

The "once-upon-a-time" story telling day care center may be doomed before the twenty-first century. In the Syracuse University program for example, students range in age from six months to four years. Most students completing the program go on to become what has been de-

scribed as "educational blockbusters."

Systematic programming of education at the simplest level will be demonstrated by Engelmann. The program, which he developed with Dr. Carl Bereiter at the University of Illinois, has helped children with average I.Q.'s in the low 90's achieve 20 point increases after two years in "micro-cram course" that stresses discipline and careful attention to the learning process.

"From Cradle to Classroom Part II" was written by Judy Towers. Fred Warshofsky is Science Editor for the series; Isaac Kleinerman, Producer; and Burton Benjamin, Executive Producer. "The 21st Century" is produced by CBS News. The program is carried locally by WBIR-TV, Channel 10.

Eliminate Hand Injuries And Improve Performance

Of the 1,707 total injuries in Y-12 in 1967 . . . 1,090 were to the hands and fingers. Eliminate this category of accident injuries and there would be a 63 per cent improvement in one year in our safety performance. Also you would have the added attraction of no mutilated hands at the end of the year. That's quite an added bonus!

END ZONE OSCAR

A pro football end we know was dropped by his team because he couldn't appear dejected enough after dropping a pass in the end zone.

Engineering Week

Continued from Page 1
irrigation projects caused expansions in the size and complexity of engineered works throughout the spectrum of industrial, governmental and private endeavors. Today, more than ever before, the engineer is playing an enlarged roll in life sciences research.

Following is a representative sample of projects in which Y-12ers have participated:

- The blood irradiation experiment aboard Gemini XI.
- The Lunar Sample Receiving Laboratory and the lunar sample return container.
- A radioisotope scanner for locating and determining the size of tumors in the human body.
- An Emergency Radiation Dosimetry Laboratory.
- A mobile body counter.
- The expansion of the facilities of the Biology Division at ORNL and the UT-AEC Agricultural Research Laboratory.

These are only a few of the vast projects in which Y-12 engineers find themselves engrossed.

Y-12 provides a healthy atmosphere for the engineer. Last year, the Tennessee Society of Professional Engineers presented its 1967 Industrial Award for Professional Development to the Y-12 Plant. Y-12 was cited for its recruiting policies, working conditions, educational assistance and salary structure. The plant was also praised for the encouragement of membership in technical and professional societies.

There are more than 300 engineers in Y-12 with 17 more on loan from other UCC installations. Of this number, 75 have been licensed by the State of Tennessee and/or other states as Professional Engineers. (This list appears nearby.)

In all areas of activity, the engineer takes the center of the stage, often the central figure in the drama of global health. People in many countries look to him for leadership and the depth of his technological know-how excites admiration in people now emerging into national development and in the science of human understanding.

Throughout early history of this nation, the engineering profession was not recognized along with the older professions such as those in medicine, divinity, law, etc. Lack of recognition in the early years has been laid to the misconceptions stemming from the ambiguous use of the title 'engineer.'

Wyoming passed the first act requiring those who wished to practice professional engineering to be legally licensed by a board of engineering examiners. As other states saw the advantages inherent in this type of regulation, similar laws were passed elsewhere, until today, all the states require registration prior to entering the public practice of professional engineering. Tennessee's law was passed in 1921.

As President Johnson stated in his salute to engineers, "Today, we take for granted that skilled engineering can routinely assure us of safe urban water supplies and efficient sanitation systems. We give little thought to our dependence on engineers to safeguard our public health. But there are new challenges to this generation of engineers. We must turn the best of our technology to preserving the health of our environment."

One weak link will spoil the safety chain.



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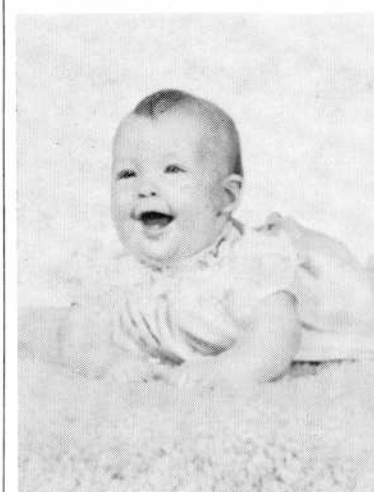
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COBY LEIGH LE TELLIER, five months old, is the daughter of Mr. and Mrs. Bob Le Tellier, Oak Ridge. Her grandparents are Mr. and Mrs. H. C. Le Tellier (Mechanical Inspection) and Mr. and Mrs. Carl W. Reordan (formerly in Area Five Maintenance). She is the fourth grandchild for the Le Telliers, the fifth for the Reordans.

Chemistry Opens New Market For Fragrance

Chemical progress has developed a new marketing tool for the fragrance industry. Called microencapsulation — it's a process whereby a fragrance is captured in tiny plastic capsules which can be coated on paper and sent to potential customers. The method is said to provide a fragrance fidelity which satisfies the most discerning nose.

The security spotlight is on you.



Riders wanted from Knoxville, Northeast section . . . Fountain City area, to any portal, straight day. F. E. Clevenger, plant phone 3-5095, home phone Knoxville 522-7393.

Ride wanted, or will join car pool, from Cumberland Estates area — Knoxville, to Bear Creek Portal, straight day. Danny Showan, plant phone 3-5941, home phone Knoxville 588-5874.

Ride wanted from Kingston Street, Lenoir City, to Bear Creek Portal, straight day. Barbara Littleton, plant phone 3-5361, home phone Lenoir City 986-3595.

Ride Wanted from West Arrowwood Road, Oak Ridge, to North Portal, straight day. Carol Guthrie, plant phone 3-5993.

UT's Morris Guest At Physics Seminar

B. M. Morris, University of Tennessee, is guest speaker at this week's Physics Division seminar. His subject will be "Brueckner Calculations of ^4He , ^{16}O , and ^{40}Ca ."

The seminar is set for tomorrow, Thursday, February 22, at 3:15 p.m. in the East Auditorium of ORNL's 4500 building.

FASHION PACE SETTER

The first miniskirt appeared in the Garden of Eden . . . only then it was called Eve's leaves.